printers' ink. A government can commit petty larceny on a community for a time just as a shop assistant may commit petty larceny behind the counter. Inconvertible notes, like false credit, might possibly be accepted through the ignorance of the people, up to a certain point. But discovery means collapse; and if Jevons had pursued his investigations farther he would have seen the ridiculousness of a piece of paper being able to masquerade for long as a *bona fide* equivalent.

Money is governed by the same laws which control other commodities. We may imagine "intrinsic" properties for money, and play tricks with paper symbols which represent it, but time will surely expose the absurdity of them all.

A. P. Hazell.

London.

STABLE MONEY.[1]

[Question may arise as to the citations of fact in the following paper; but since its chief interest lies in the line of argument adopted, rather than in the data to which it has recourse, it has been printed without change.—Editor.]

I desire briefly to speak of what is probably one of the most important considerations in the science of money and in the reform of our monetary system. I refer to the establishment of *stable money* and its correlary, stable general prices.

I will first state five fundamental propositions:

1. Despite the difficulty some appear to experience in grasping the fact, there is, in addition to prices of *individual things* as wheat or iron or land, *a general average of prices* of all commodities taken together; or what has been not inaptly styled a "sea level of prices."

2. This sea level of prices may be statistically determined; in fact, it has for many years been thus determined for many commodities by such statisticians as Soetbeer, Jevons, the London economist, and others.

3. It may be graphically depicted in diagrammatic form (as in the accompanying chart) and may thus be presented to the eye at a glance.

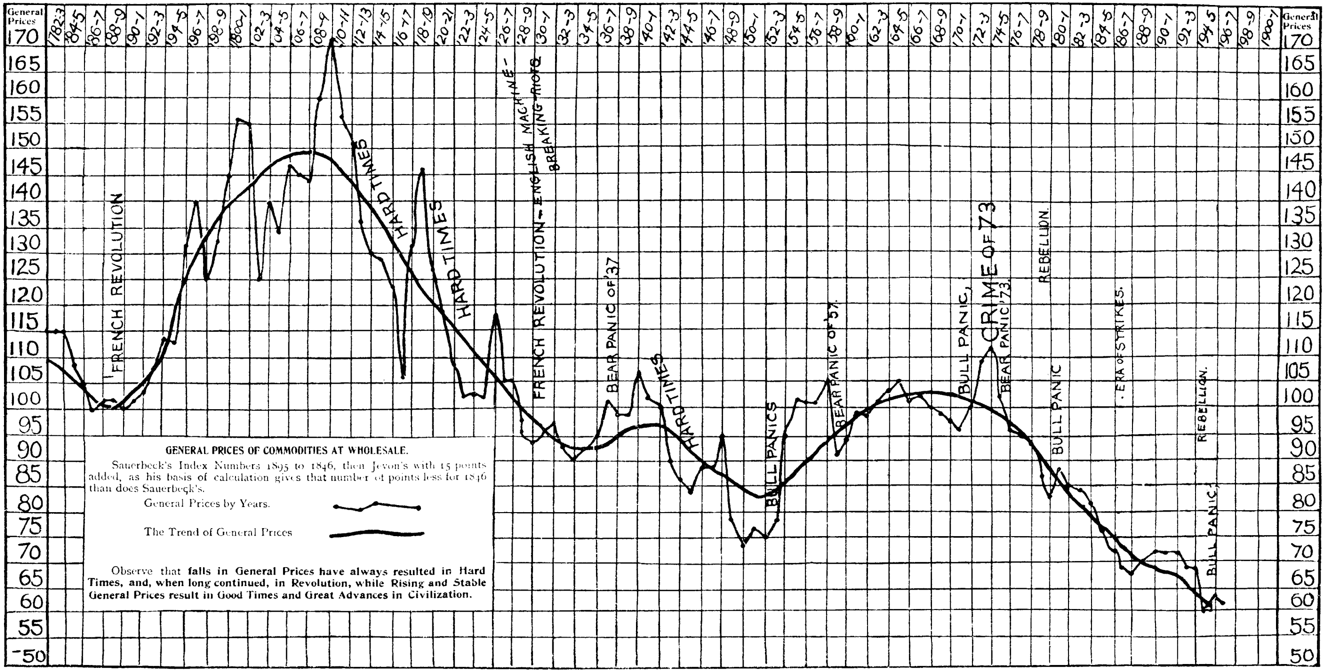
[1] Paper read before the Omaha Monetary Congress.

4. The inspection of such a diagram reveals two clearly defined movements: an oscillatory movement, violently fluctuating through short periods as months, years and decades, and a general trend, which since 1873 has been a terrific downward sweep.

5. The impartial study of financial and industrial history reveals that both these movements are vicious, the oscillatory fostering the speculative spirit, turning business from the work of producing for the satisfaction of consumption into that of "betting on the market,' and reducing it, in large measure, to a gambling game; while the steady downward trend of prices robs debtors to the unfair advantage of creditors, makes long-time debts more and more difficult and often impossible to pay, thus leading to the steady foreclosure of mortgages and the emphasizing of the inequalities in the distribution of wealth, impels abandonment of the legitimate arts of production, since business men will not produce against a "falling market," and leads instead to an increasing demand for safe investments, as bonds upon governments and other sound securities.

I offer now two propositions in the line of reform, the first desirable, the second essential to a rational and honest money system. The first is that the statistical exhibit of the double movement of prices be made as accurate and trustworthy as possible. To this end the force of our national treasury department or of our national bureau of labor statistics should be enlarged by the creation of a permanent commission of eminent experts in statistics of industry and finance, nonpartisan in character, and representing various points of view on the great industrial and financial problems of the day. To this commission should be entrusted the work of collecting statistics of general prices, weighting the same as their relative importance may require, constructing the price curve carefully and publishing the same at short intervals in such form as shall display the double movement of general prices through a considerable period of time as a half century or century and, on a larger scale, the same double movement through the few months and weeks immediately preceding each successive publication. As a matter of course, all the details and processes of this work should be open to the fullest publicity and to the criticism of competent and incompetent alike.

The actual movement of prices once determined, my next proposal is that this movement be regulated with a view to establishing stability of general prices and causing the price line in future to



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describe not the path of a bolt of lightning through a thunder cloud but a sane, straight and steady path. The line, instead of oscillating violently from month to month and year to year, and sweeping downward by successive flights through decades, should be made to run, as nearly as possible, on a level, straight across the page of the diagram.

I am met at once with the inquiry, Is it possible thus to control the movement of general prices? I answer, In large measure, unquestionably, yes. Certainly the downward sweep, marking the declining prosperity of large classes and the gathering in of immeasurable unearned increment by other small classes can be wholly corrected; while the oscillations, desirable only to the gambler in prices, can be largely remedied. The key to the problem lies in the connection between prices and the medium of exchange.

According to the Ricardian formula, accepted by the early economists, the connection subsisting between prices and the volume of money is direct and constant. Each moves with the other. As the one (the money volume) increases the other (the average price of goods) increases, and inversely. Expanding the money volume thus produces the same effect upon the sea level of prices as is produced upon the level of water in a lake by the melting of snow in the mountains and the swelling of the streams by which the lake is fed; while diminishing the money volume lowers the general level of prices exactly as drafting off water from the lake lowers the level of the lake.

Upon this theory "sound money" men today heap unmeasured scorn and ridicule. On examination, however, it is found that the real crux of their criticism lies in the apparent disregard, by the above formula, of the existence and vast importance of *credit* as a medium of exchange in modern industry. Credit, we are told, represented by pass and check books, bills of exchange, and other devices of modern banking, now does some 90 per cent. of the work supposed by the uninformed to be done by money. Hence fluctuations in the volume of actual money can produce but an inconsiderable effect, at best, upon the average of prices. This, however, even if true as thus broadly stated, by no means affects the validity of the principle briefly enunciated by the formula. It simply requires a slight modification of the wording of the formula, which, now, to meet the requirements of changed economic conditions should be made to read, The average of general prices varies directly as the total volume of the *medium of exchange* (rather than money); as the total exchange medium increases,

average prices correspondingly increase, and as it diminishes, they diminish. In this total volume of the medium of exchange we may now include gold and silver money, government paper and bank money, credit instruments of all sorts, and even private media of exchange represented by clearing house certificates, checks issued by company stores, and whatever in any way functions as a machine for facilitating the exchange of goods and services. If, now, the volume of the total exchange medium, as thus defined, can be controlled the movement of average prices can be correspondingly controlled. Is such control possible?

It is conceded that certain factors of the exchange medium are now, in the absence of appropriate legislation, but slightly subject to social control. Gold is freely coined by the government for the benefit of the owner of bullion. The volume of bullion that may in any year be presented for coinage is dependent upon the accidents of discovery, the profits of mining and the demands of the arts. The volume of bank notes is determined, at its lower limit, by the profits of bank circulation, and at its upper by the total volume of available government bonds. The volume of bank credit is dependent largely upon the highly unstable and abstract psychological phenomenon called "confidence;" while the volume of private money, though steadily encroached upon with the advance of civilization, is confined within highly indefinite limits. A veritable anarchy thus exists as to the volume of certain important factors of our medium of exchange and, hence, of the total volume of that medium itself. Yet one of the factors is of right and by custom subject to the control of the people through their Congress. This is government paper money, the so-called greenback; while, through the processes of receipt and payment of the various forms of money, our federal treasury can affect materially the volume of the money in circulation.

While the lack of effective social control of some forms of exchange medium — a lack which will doubtless in time be supplied — will embarrass in a measure all attempts at controlling the price level, yet it is nevertheless believed that by properly expanding and contracting the supply of government paper money and other funds handled by the federal treasury the price level may in large measure be regulated. To illustrate: water is admitted into and drawn from a tank through many connecting pipes, large and small. All of these pipes, save two, are beyond our control. These two, however, one admitting

water to and the other withdrawing it from the tank, are large. We desire to maintain a level of water in the tank at a given height, say three feet. Obviously, our problem would be simple if all the pipes were under our control. As it is, however, we can accomplish much. When, through the introduction of water by others, the level rises above the three-foot limit, we have but to open our exit pipe and drain off water until the desired level is reached. Similarly, when the level falls below three feet we may raise it by admitting water through the pipe under our control. Working thus, consciously and methodically, with the end of maintaining the fixed level, we could do much toward accomplishing our purpose, despite the opposing forces indicated; and could only be completely baffled by the combined action of others controlling pipes which, together, carry more water than our own. In such a case the remedy would be found only in an extension of our control over pipes now operated by others.

Similarly, though many factors of our exchange medium are under the control of private individuals and interests, expanding today and contracting tomorrow, but, on the whole, contracting more than they expand (though the expansion of industry and the multiplication of exchanges demand exactly the opposite course); the public, through its control of government paper money, can, by expanding when others contract and contracting in case they unduly expand, go far toward maintaining a level of general prices. Should, however, the combined action of private interests controlling the volume of other exchange media too seriously embarrass the work of maintaining stability of prices, it would be necessary to extend the public control over still other factors of the medium of exchange. The remedy proposed, though applied in so moderate a manner as has been suggested, would unquestionably act as an injection of oil into the troubled waters of our sea of prices. Should the billows still toss too wildly it would be necessary for us to apply the regulative function to the next most important factor, that, namely, of credit.

Assuming next that it is theoretically possible to regulate the level of general prices in the manner indicated, the question next arises, How should the expansions and contractions be effected? A mild and conservative method that has been suggested is the purchase and sale by the national treasury of call bonds. When expansion is desired, as shown by a falling price line, such bonds would by this method be purchased, the requisite funds being obtained by taxation, or by print-

ing new bills as bank notes are printed when a bank applies for circulation. When contraction is necessary, as shown conversely by the rising of the price line above the normal level, bonds would be sold and money withdrawn from the circulation and locked in the vaults of the treasury.

The second method, involving more material changes in our present financial system, is one which would be far more serviceable in time of panic and one which the uncertain volume and refractory character of bank credit may render necessary. It is that, viz., resulting not from the government going out of, but resolutely deeper into the banking business. By the transmission of money through the mails the government, through its public post office, now exercises an important function once largely monopolized by banks and express companies. The demand for postal savings banks has grown so strong that the postmaster-general, even of the present "sound money" administration, strongly recommended its adoption. The next step beyond postal savings banks would be the postal bank of discount and deposit, furnishing money on safe paper at 3 or 2 per cent., figures which "sound money" authorities now admit to be not unreasonably low. While the adoption of this measure by government need not mean the monopolizing by it of the business of deposit and discount banking, any more than the establishment of the post office money-order system meant the monopoly by the government of the business of transmitting money, it would mean the breaking of the banks' monopoly of this business and would make possible so large a control of the credit system by government as would greatly facilitate the maintenance of a stable average price.

The most striking and beneficent result of government banking, as indicated, would be the application of rational methods to the handling of a crisis or panic. "Sound money" authorities are now admitting that panics are unnecessary. Prudent government banking would render them impossible. It is a commonplace that American banks today, in order to protect themselves from the fury of a panic, do for the public exactly the wrong thing at the time. Bagehot explained with endless iteration in his *Lombard Street* that a panic, instead of being starved, should be fed—literally choked to death with money. American banks habitually employ the opposite treatment, and contract their credits and loans in the face of a panic because they feel they must protect their reserves. As a check to

panic this is like throwing kerosene upon a burning building. Here a boundless field would be found for the operations of the government bank.

If the suspension of the Peel Act and the extension to the Bank of England of permission to inflate the currency with its notes or credits can prevent a crisis, much less a panic; and if the sale of gold from the New York subtreasury could stop the Black Friday panic when that financial cyclone was under full headway, much more could the discount of good commercial paper prevent both crises and panics in the United States. Since, however, the banks admittedly cannot supply these accommodations and thus harmlessly draw off the electrical fluid which otherwise generates financial tornadoes, it becomes necessary that the community, organized, if for nothing else, certainly for self-protection and self-preservation, supply the accommodations and prevent the crash.

The proposal, then, in a nutshell is, first, that a trustworthy barometer of general prices be furnished both to the treasury department and to the general public through a scientifically and accurately constructed price line; second, that, guided by this price line, the United States treasury department actually control the movement of general prices, expanding when the price line falls below the normal level and contracting when it rises above.

Finally, may the proposed method of regulating the average level and stilling the tempest of general prices be applied to our present monetary system, or must it wait for the establishment of bimetallism, national or international, or the supersession of all other existing forms of money by full legal tender government paper? As above indicated, the more complete the control of the entire monetary system by the whole people through their central government the more certainly efficacious would be the remedy. Hence, bimetallism would be preferable to gold standardism; national bimetallism would be preferable to international, the latter subjecting our monetary system largely to foreign control, and "greenbackism," that is, the establishment of a full legal tender government paper system, scientifically limited in amount by the method herein described, independent of any metallic backing whatever, and superseding absolutely all forms of bank money or "bank currency" issues, would be best of all; for such a system would be most completely under the control of the people, and would render not only possible but entirely practicable the public control of the

general movement of prices. Fortunately, however, so beneficent a reform need not wait for great changes in our present financial system. The next Congress could provide both for the statistical commission and for the immediate application of the regulating machinery, as explained. To check the fall in prices existing bonds could be purchased, when necessary, in the open market and at the inevitable premium, and be paid for with the proceeds of our present system of taxation — though a humane system of taxation, bearing lightly upon the weak, and upon the strong in proportion to their ability to pay, would be infinitely preferable.

Nor is it easy to foresee a rational objection that could be urged, save by speculators and those directly interested in the continued decline of the price level, against a proposal at once so intelligible, conservative, and simple, and so beneficent in its effects.

Given, then, this balance wheel, regulating at the same time the volume of our exchange medium and the movements of the price line, we should enjoy, for the first time in our history, if not in the history of the modern world, an equitable standard of deferred payments, a money of uniform purchasing power, and an "honest dollar."

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